

REMARKS

I. Status and Disposition of the Claims

In a Final Office Action dated December 21, 2007, the Office continued to reject claims 48-94 for the reasons of record. In response, Applicants respectfully continue to disagree with and traverse this rejection for at least the reasons of record. Nonetheless, for the sole purpose of advancing prosecution, and without acquiescing to the Office's position in any way, Applicants have amended claims 48, 88, and 94 to incorporate the elements of claims 61 and 63. Accordingly, claims 61 and 63 have been cancelled without prejudice or disclaimer, and claims 48-60, 62, and 64-94 are now pending and under consideration on the merits.

Support for the above amendments may be found in the originally filed specification and claims, for example, in original claims 14 and 16. Thus, these amendments raise no issue of new matter.

With respect to the pending claim rejections, Applicants respectfully disagree with and traverse each of the applied rejections for the reasons of record, as well as the following additional reasons.

II. Response to Claim Rejections

A. 35 U.S.C. § 103(a) Rejection of Claims 48-80, 83-88, and 90-94:

The Office continues to reject claims 48-80, 83-88, and 90-94 under 35 U.S.C. § 103(a) as being unpatentable over Sumiyoshi (JP 2000-086824), Exxon Mobil Chemical (of record; hereafter, "Exxon"), Hawley's Dictionary (of record, hereafter, "Hawley") and Takeuchi (US 5,498,735, of record; hereafter, "Takeuchi"). Final Office

Action, page 2. Applicants respectfully disagree with and traverse this rejection for at least the reasons of record, as well as the following additional reasons.

In making a rejection under 35 U.S.C. § 103, the Office “bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. See M.P.E.P. § 2142. In its decision in *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 82 U.S.P.Q. 2d 1385 (2007), the Supreme Court confirmed that the “framework for applying the statutory language of §103” was still based on its landmark decision in *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 148 U.S.P.Q. 459 (1966). Under *Graham*, there are four factors for consideration when determining whether an invention is obvious:

- (1) the scope and content of the prior art;
- (2) the differences between the prior art and the claims at issue;
- (3) the level of ordinary skill in the art; and
- (4) secondary considerations.

383 U.S. at 17, 148 U.S.P.Q. at 467. However, the Court indicated that there is no necessary inconsistency between the idea underlying the teaching, suggestion, or motivation (“TSM”) test and the *Graham* analysis. *KSR*, 127 S. Ct. at 1741, 82 U.S.P.Q. 2d at 1389. As long as the TSM test is not applied as a “rigid and mandatory” formula, the test can provide “helpful insight” to an obviousness inquiry. *Id.*

Each of present independent claims 48, 88 and 94 recite, *inter alia*, an

elastomeric composition compris[ing]... (c) at least one polymer of at least one C₃-C₂₄ α-olefin. . . . wherein the at least one polymer (c) has a degree of branching: from 1 mol % to 20 mol % of methyl groups, relative to the total number of carbon atoms; and from 80 mol % to 99 mol % of methylene groups, relative to the total number of carbon atoms.

See present claims 48, 88, and 94.

In the present case, a fair reading of the cited references reveals that there is no factual or legal basis for the Examiner's assertion that one of ordinary skill in the art would have found it obvious to modify Sumiyoshi so as to use an elastomeric composition comprising at least one polymer of at least on C₃-C₂₄.alpha olefin, particularly wherein that polymer has a degree of branching within the scope of the present claims.

Of course, Applicants acknowledge the Office's assertion that "[o]ne of ordinary skill in the art at that the of the invention would have found it obvious to use a wide variety of hydrocarbon resins in the rubber composition of Sumiyoshi, including those that satisfy the broad range of parameters required by the claimed invention." Office Action, page 4. Applicants also acknowledge the Office's assertion that the claimed degree of branching is allegedly "well known." *Id.* However, Applicants respectfully disagree with and traverse these assertions, at least because they are not supported by **evidence**.

In this regard, Applicants respectfully remind the Office that the Federal Circuit has clearly explained that while U.S. Patent Examiners may rely upon what is generally known in the art, they **must** provide evidentiary proof of that knowledge. *In re Zurko*, 59 U.S.P.Q.2d 1693, 1697 (Fed. Cir. 2001) ("With respect to core factual findings in a determination of patentability, however, the Board cannot simply reach conclusions based on its own understanding or expertise . . . Rather, the Board **must point to some concrete evidence** in the record in support of these findings.") (emphasis is added). Here, however, the Office has not pointed to any evidence, much less *concrete*

evidence, in support of its assertions that the ***claimed*** degree of branching would have been obvious to one of ordinary skill in the art. Rather, the Office has merely asserted, without evidence, that such is the case. Such reasoning is clearly counter to the Federal Circuit's holding in *Zurko*, and is insufficient to establish a *prima facie* case of obviousness.

Applicants also recognize that the Office may be relying on official notice with respect to claimed features that are allegedly "well known." See M.P.E.P. § 2144.03. If this is the case, Applicants respectfully challenge the Office's taking of official notice, and respectfully request that the Office provide the requisite evidence necessary to support its assertions. See M.P.E.P. §2144.03(C). In support of this challenge, Applicants note that while hydrocarbons are often characterized as branched, linear, substituted, and/or unsubstituted, there is no evidence of record or any indication in the knowledge of one of ordinary skill that hydrocarbon resins *necessarily* have the claimed degree of branching in the narrow manner claimed, as implied by the Office's position in the Final Office Action.

Finally, to the extent the Office may be asserting that the cited references support its position, Applicants respectfully disagree. As admitted by the Office in the Final Office Action, Sumiyoshi does not expressly disclose the use of a polymer of a C₃-C₂₄ polyolefin having the claimed degree of branching. See Final Office Action, page 4. In fact, Sumiyoshi is completely silent with respect to any degree of branching exhibited by any of its polymers.

Hawley, Exxon, and Takeuchi do not cure the deficiencies of Sumiyoshi in this respect. Hawley and Takeuchi, like Sumiyoshi, are silent with respect to the claimed

degree of branching. Exxon, though indicating that branched polymers may be obtained by polymerizing a diolefin such as trans-1,3-pentadiene, is completely silent with respect to the degree of branching exhibited by the resulting polymer. See Exxon, page 15. Moreover, Exxon provides no information suggesting that its polymers necessarily possess the claimed degree of branching, and the Office has provided no technical argument in support of such a position. Finally, Hawley, Takeuchi, and Exxon provide no information suggesting that a polymer of a C₃-C₂₄ polyolefin having the claimed degree of branching exhibits beneficial or improved properties, relative to the polymers disclosed by Sumiyoshi.

In sum, all of the references cited in this §103(a) rejection are completely silent with respect to a composition comprising, *inter alia*, a polymer of a C₃-C₂₄ polyolefin, as claimed. Moreover, none of the references cited in this § 103(a) rejection provide any information that any of the polymers they disclose necessarily possess the claimed degree of branching. And none of the references cited in this § 103(a) rejection indicate that a polymer of a C₃-C₂₄ polyolefin having the claimed degree of branching exhibits beneficial properties relative to the polymers of Sumiyoshi.

In view of these clear deficiencies, Applicants respectfully submit that the Office has not shown that the cited references teach or even suggest each and every element of the pending claims. Moreover, Applicants respectfully submit that the Office has not provided a tenable rationale explaining *why* one of ordinary skill, looking at three references that make no mention of the claimed polymer of a C₃-C₂₄ polyolefin or its benefits, would have been driven to modify Sumiyoshi so as utilize a polymer within the scope of the present claims. For at least these reasons, Applicants respectfully submit

that the § 103(a) rejection of claims 48-80, 83-88, and 90-94 is improper, and should be withdrawn.

B. 35 U.S.C. § 103(a) Rejection of Claims 81, 82, and 89:

The Office continues to reject claims 81, 82, and 89 under 35 U.S.C. § 103(a) as being unpatentable over Sumiyoshi, Exxon, Hawley, Takeuchi, and U.S. Patent No. 4,207,218 to Jorgenson Jr. et al. ("Jorgenson") for the reasons set forth at page 6 of the Office Action. Office Action, page 6. In response, Applicants respectfully disagree with and traverse this rejection for at least the reasons of record, as well as the following additional reasons.

At a minimum, Applicants traverse this § 103(a) rejection because Jorgenson, like Hawley, Exxon, and Takeuchi above, fails to teach or even suggest a polymer of a C₃-C₂₄ polyolefin having the claimed degree of branching. Indeed, the Office implicitly admits this fact by not utilizing Jorgenson as a basis to reject previous claims 61 and 63. Thus, even if, *arguendo*, Jorgenson is considered to teach other aspects of the claimed invention, it does not teach or even suggest a polymer of a C₃-C₂₄ polyolefin having the claimed degree of branching. Thus, Jorgenson cannot cure the deficiencies of Sumiyoshi, Hawley, Exxon, and Takeuchi described above.

For at least the foregoing reasons, Applicants respectfully submit that the 35 U.S.C. § 103(a) rejection of claims 81, 82, and 89 is improper, and should be withdrawn.

III. Conclusion

In view of the foregoing amendments and remarks, Applicants submit that this claimed invention, as amended, is neither anticipated nor rendered obvious in view of the prior art references cited against this application. Applicants therefore request the entry of this Amendment, the Examiner's reconsideration of the application, and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to Deposit Account No. 06-0916.

Respectfully submitted,

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